IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. 15258US05

In the Application of:

Ahmadreza Rofougaran et al.

U.S. Serial No.: 09/699,019

Filed: October 27, 2000

For: ADAPTIVE RADIO TRANSCEIVER WITH A BANDPASS FILTER

Examiner: Marceau Milord

Group Art Unit: 2618

Confirmation No.: 5832

Customer No.: 23446

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RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is a timely Response to the Notification of Non-Compliant Appeal Brief mailed December 10, 2007 ("Notification"). The deadline by which to respond is January 10, 2008. The Notification states that Appellants may merely submit a revised Summary of the Claimed Subject Matter section.

SUMMARY OF CLAIMED SUBJECT MATTER

Some embodiments according to some aspects of the present invention may provide a notch filter as set forth, for example, in claim 1. The notch filter may include, for example, a first polyphase filter (e.g., polyphase filter 360) and a second polyphase filter (e.g., polyphase filter 362). See, e.g., FIGS. 18 and 19e. The first polyphase filter (e.g., polyphase filter 360) may output a plurality of phases of an input signal including, for example, a first phase and an inverted first phase. See, e.g., specification at page 38, lines 14-31. The second polyphase filter (e.g., polyphase filter 362) may have an input that receives the inverted first phase and an inverted input to receive the first phase. See, e.g., specification at page 38, lines 14-31.

Some embodiments according to some aspects of the present invention may provide a notch filter as set forth, for example, in claim 12. The notch filter may include, for example, a first polyphase filter (e.g., polyphase filter 360) and a second polyphase filter (e.g., polyphase filter 362). See, e.g., FIGS. 18 and 19e. The first polyphase filter (e.g., polyphase filter 360) may include, for example, an input and an output. See, e.g., specification at page 38, lines 14-31. The output of the first polyphase filter (e.g., polyphase filter 360) may include, for example, a non-inverted output and an inverted output. See, e.g., specification at page 38, lines 14-31. The second polyphase filter (e.g., polyphase filter 362) may include, for example, an input including, for example, a non-inverted and inverted input. See, e.g., specification at page 38, lines 14-31. The non-inverted output of the first polyphase filter (e.g., polyphase filter 360) may be coupled to the inverted input of the second polyphase filter (e.g., polyphase filter 362). See, e.g., specification at page 38, lines 14-31. The inverted output of the first polyphase filter (e.g., polyphase filter 360) may be coupled to the non-inverted input of the second polyphase filter (e.g., polyphase filter 362). See, e.g., specification at page 38, lines 14-31.

Some embodiments according to some aspects of the present invention may provide a notch filter as set forth, for example, in claim 20. The notch filter may include,

for example, generating means (e.g., polyphase filter 333) and notching means (e.g., polyphase filter 334). See, e.g., specification at page 39, lines 3-7; and FIG. 19e. The generating means (e.g., polyphase filter 333) may generate an output signal including, for example, a plurality of phases of an input signal. See, e.g., specification at page 39, lines 3-7; and FIG. 19e. The notching means (e.g., polyphase filter 334) may notch, for example, a particular frequency of the input signal as a function of the phases. See, e.g., specification at page 39, lines 3-7; and FIG. 19e.

Some embodiments according to some aspects of the present invention may provide a method that notches a particular frequency of a signal as set forth, for example, in claim 26. The method may include, for example, one or more of the following: generating an output signal comprising a plurality of phases of an input signal (see, e.g., specification at page 38, line 14 to page 39, line 16); and notching the particular frequency of the input signal as a function of the phases (see, e.g., specification at page 38, line 14 to page 39, line 16).

Some embodiments according to some aspects of the present invention may provide a circuit as set forth, for example, in claim 31. The circuit may include, for example, a mixer (e.g., complex mixer 30) and a polyphase filter (see, e.g., specification at page 13, lines 3-5). See, e.g., FIG. 2; and specification at page 12, line 29 to page 13, line 7). The mixer (e.g., complex mixer 30) may have, for example, an output that may include, for example, a mixed signal output and an inverted mixed signal output. The polyphase filter (see, e.g., specification at page 13, lines 3-5) may have, for example, an input including, for example, a non-inverted input and an inverted input. The non-inverted input may be coupled to the inverted mixed signal output. The inverted input may be coupled to the non-inverted mixed signal output. See, e.g., specification at page 37, line 6 to page 39, line 16.

Some embodiments according to some aspects of the present invention may provide a circuit as set forth, for example, in claim 46. The circuit may include, for example, a first polyphase filter (e.g., polyphase filter 360) and a second polyphase filter (e.g., polyphase filter 362). See, e.g., FIGS. 18 and 19e. The first polyphase filter (e.g.,

polyphase filter 360) may have, for example, an output including, for example, a non-inverted output and an inverted output. See, e.g., specification at page 38, lines 14-31. The second polyphase filter (e.g., polyphase filter 362) may have, for example, an input including, for example, a non-inverted input and an inverted input. See, e.g., specification at page 38, lines 14-31. The non-inverted input of the second polyphase filter (e.g., polyphase filter 362) may be coupled to the inverted output of the first polyphase filter (e.g., polyphase filter 360). See, e.g., specification at page 38, lines 14-31. The inverted input of the second polyphase filter (e.g., polyphase filter 362) may be coupled to the non-inverted output of the first polyphase filter (e.g., polyphase filter 360). See, e.g., specification at page 38, lines 14-31.

Some embodiments according to some aspects of the present invention may provide a circuit as set forth, for example, in claim 54. The circuit may include, for example, mixing means (e.g., complex mixer 30) and filtering means (see, e.g., specification at page 13, lines 3-5). See, e.g., FIG. 2; and specification at page 12, line 29 to page 13, line 7). The mixing means (e.g., complex mixer 30) may mix two signals and may output a mixed signal and an inverted mixed signal. The filtering means (see, e.g., specification at page 13, lines 3-5) may notch a particular frequency of the mixed signal using a polyphase structure (e.g., polyphase filter 360, 362). See, e.g., specification at page 37, line 6 to page 39, line 16.

Some embodiments according to some aspects of the present invention may provide a circuit as set forth, for example, in claim 59. The circuit may include, for example, first filtering means (e.g., polyphase filter 360) and second filtering means (e.g., polyphase filter 362). See, e.g., FIG. 18 and 19a. The first filtering means (e.g., polyphase filter 360) may notch a first frequency of a signal using a first polyphase structure (e.g., polyphase filter 360). See, e.g., specification at page 38, lines 14-31. The second filtering means (e.g., polyphase filter 362) may notch a second frequency of the signal using a second polyphase structure (e.g., polyphase filter 362). See, e.g., specification at page 38, lines 14-31. The second frequency may be different from the first frequency. See, e.g., specification at page 38, lines 14-31.

Some embodiments according to some aspects of the present invention may provide a method of filtering a signal as set forth, for example, in claim 62. The method may include, for example, notching a particular frequency of the signal using a polyphase structure (e.g., polyphase filter 360, 362). See, e.g., specification at page 38, lines 14-31.

REMARKS

This paper is a timely Response to the Notification of Non-Compliant Appeal Brief mailed December 10, 2007 ("Notification").

The Notification states that the Summary of Claimed Subject Matter section of the Appeal Brief filed November 23, 2007 is defective for not mapping the independent claims on appeal, referring to the specification by page and line number and to the drawings, if any, by reference numbers.

The Notification states that Appellants may merely submit a revised Summary of the Claimed Subject Matter section.

In response to the Notification, Appellants have enclosed a revised Summary of Claimed Subject Matter section.

The Commissioner is hereby authorized to charge any additional fees, to charge any fee deficiencies or to credit any overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: January 10, 2008

Respectfully submitted,

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